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## **RESEARCH AND POLICY BRIEF ON ICT FOR THE INCLUSION OF YOUTH AT RISK**

*Using ICT to reengage and foster socio-economic inclusion of youth at risk of social exclusion, marginalized young people and intermediaries working with them*

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## **RESEARCH AND POLICY BRIEF ON ICT FOR INCLUSION OF YOUTH AT RISK: Using ICT to reengage and foster the socio-economic inclusion of youth at risk of social exclusion, marginalized young people and intermediaries working with them**

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Morten Aagaard, Stefanie Stadler Elmer**



The mission of the IPTS is to provide customer-driven support to the EU policy-making process by researching science-based responses to policy challenges that have both a socio-economic and a scientific or technological dimension.

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<sup>1</sup> IPTS (Institute for Prospective Technological Studies) is one of the 7 research institutes of the European Commission's Joint Research Centre (JRC).



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## 1.0 Introduction

This policy and research brief has been prepared by the Institute for Prospective Technological Studies (JRC-IPTS) in collaboration with Directorate General Information Society & Media, Unit H3 (ICT addressing Societal Challenges) and representatives from five FP7-funded projects related to the development of ICT-based solutions for Youth at Risk (YAR) and Marginalized Young People (MYP).

This policy and research brief is based on two concertation meetings (20 January and 11 June 2010) and other exchanges that set out to develop collectively a set of agreed recommendations through a consensus building process to prioritise research and policy options for this specific area in the eInclusion field. It is also related to the development of two studies by IPTS for DG INFSO H3 on what ICT can do for the socioeconomic inclusion of youth at risk of social exclusion, entitled "Mapping and assessing the impact of ICT-based initiatives for the socio-economic inclusion of Youth at risk of exclusion<sup>2</sup>" and "Methodology and survey on the relation between the socio-economic conditions of European Young People and their access, use and aspirations regarding ICT."<sup>3</sup>

The first part of this report summarizes knowledge from recent IPTS research<sup>4</sup> which included a review of the literature on social exclusion of young people, and ICT use by young people. It also provides insights on the current EU policy context and programmes targeting YAR/MYP. In the second part, it presents commonly agreed and prioritized research and policy recommendations by 5 FP7 projects (INCLUSO, ComeIn, REPLAY, HANDS, UMSIC) regarding ICT-based solutions for the promotion of the socioeconomic and eInclusion of YAR/MYP by fostering their access to ICT, digital competences, education and training, social integration and employment opportunities.

More information on these research projects can be found at:

<http://www.incluso.org/>  
<http://www.comein-project.eu/>  
<http://www.replayproject.eu/>  
<http://www.hands-project.eu/>  
<http://www.umsic.org/>  
<http://is.jrc.ec.europa.eu/pages/EAP/eInclusion.html#Youth>

Other studies and results of the IPTS Information Society Unit can be found on the Unit website:

<http://is.jrc.ec.europa.eu>.

### 1.1 Methodology

The area of ICT for MYP was introduced into the FP7 ICT Work Programme<sup>5</sup> as an attempt to cover part of the social inclusion of marginalized young people through e-Inclusion measures as defined in the Riga Ministerial Conference.<sup>6</sup> The five projects (INCLUSO, ComeIn, REPLAY, HANDS, UMSIC) involved in the drafting of this "policy and research note" constitute a first outcome of this policy as they answered the following 2007 FP7 call for "Accessible and inclusive ICT" (sub-item "Stronger RTD capacity through delivery of proof of concept for ICT solutions facilitating social inclusion of marginalized young people").

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<sup>2</sup> Studying in-depth the following Member States: UK, Netherlands and Spain.

<sup>3</sup> Studying in-depth the following Member States: UK, Romania and Spain.

<sup>4</sup> Literature review and policy review regarding young people, social exclusion and ICT result from the study, "Mapping and assessing the impact of ICT-based initiatives for the socio-economic inclusion of youth at risk of exclusion", JRC-IPTS, European Commission. Authors: J. Cullen, C. Cullen, V. Maes, J. Moltesen, M. Velarde, to be published at the beginning of 2011.

<sup>5</sup> ICT-2007.7.2 Accessible and inclusive ICT, sub-item Stronger RTD capacity through delivery of proof of concept for ICT solutions facilitating social inclusion of marginalized young people.

<sup>6</sup> "ICT for an Inclusive Society Conference", Ministerial Declaration approved unanimously, Riga, 2006, available at: [http://ec.europa.eu/information\\_society/events/ict\\_riga\\_2006/index\\_en.htm](http://ec.europa.eu/information_society/events/ict_riga_2006/index_en.htm)



A first concertation meeting with representatives from these 5 currently supported MYP (Marginalized Young People) projects and JRC-IPTS<sup>7</sup> took place on 20 January 2010 at the request of DG INFSO. The Institute for Prospective Technological Studies (IPTS) is one of the seven scientific institutes of the European Commission's Joint Research Centre (JRC). IPTS promotes and enables a better understanding of the links between technology, economy and society. Its mission is to provide customer-driven support to the EU policy-making process by developing science-based responses to policy challenges that have both a socio-economic as well as a scientific/ technological dimension.

This first concertation meeting was followed by a one day workshop on "ICT for social Inclusion with a specific focus on Social Computing possibilities"<sup>8</sup> which gathered around 50 participants, among them representatives from the 5 FP7 projects. This first meeting was extremely fruitful in terms of providing all participants with a more comprehensive understanding of issues, approaches, challenges and solutions developed by each of them. Additionally, for some of them it was a good time to draw key findings and lessons learned from each project portfolio and elaborate together on possible future research and policy recommendations.

In order to achieve this, DG INFSO, H3 invited each of the five projects to a second MYP concertation meeting in Brussels on 11 June 2010 (av. de Beaulieu 25, 0/S3) to discuss ideas and each project's intermediate conclusions regarding future possibilities (research- and policy-wise) in order to contribute to a common draft with the assistance of IPTS. Participants were asked to send before the second meeting a short summary of their main proposals for research and policy options. One of the essential aims of latter was to present and discuss each project policy and research note, identify commonalities and clusters among them, and to develop, through a consensus building<sup>9</sup> approach, a prioritization among the several research and policy recommendations presented. First results were registered by IPTS in a draft document that was then circulated to all participants so they could complete and amend it. It should be noted that all technical concepts in italics quoted in this document are defined in the glossary in Annex 2.

Overall, the methodology was very well received<sup>10</sup> as this joint initiative brought advantages to all stakeholders. For the EU Commission, it constituted a means of receiving a coherent and coordinated response to the original call and enabled it to go into more depth during exchanges with coordinators of the projects.

For the projects themselves, the exchange of expertise in the different projects brought their individual results to a higher level of understanding by presenting and evaluating them against the different approaches and outcomes of the other projects. Participants saw this joint initiative as a dynamic process that provided them with more knowledge on what was happening in the field from the perspective of other ICT-based approaches, and also reassured them in the formulation of their research and policy recommendations as many overlapping clustering elements among 5 projects were detected in the first and the second concertation meetings.

Finally, for JRC-IPTS, it was a way to develop partnerships with policymakers, researchers and practitioners working on the issue of what ICT can do for YAR/MYP. Being involved in the development of this policy brief brought IPTS researchers closer to the project findings and outcomes and provided them with a better understanding of the nature of these findings and the reality faced by research projects aiming to develop services and solutions using ICT for YAR/MYP.

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<sup>7</sup> <http://ipts.jrc.ec.europa.eu/>

<sup>8</sup> Social Inclusion and Related Technologies (with a particular focus on social computing and inclusion) Workshop. Brussels, 21 January 2010, report available at: [http://ec.europa.eu/information\\_society/activities/einclusion/events/workshop\\_youth/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/events/workshop_youth/index_en.htm)

<sup>9</sup> "Consensus means overwhelming agreement. And, it is important that consensus be the product of a good-faith effort to meet the interests of all stakeholders. The key indicator of whether or not a consensus has been reached is that everyone agrees they can live with the final proposal; that is, after every effort has been made to meet any outstanding interests. Thus, consensus requires that someone frame a proposal after listening carefully to everyone's interests. Interests, by the way, are not the same as positions or demands. Demands and positions are what people say they must have, but interests are the underlying needs or reasons that explain why they take the positions that they do. Most consensus building efforts set out to achieve unanimity", Source: "A Short guide to consensus building" available at: [http://web.mit.edu/publicdisputes/practice/cbh\\_ch1.html](http://web.mit.edu/publicdisputes/practice/cbh_ch1.html)

<sup>10</sup> For further details concerning the evaluation, see Annex 1, which summarise briefly the evaluation of the process by representatives of involved projects.

This document represents the final output of this discussion process that took place between participants in order to deliver a common research and policy note to DG INFSO H3. These recommendations will also be presented at a panel discussion at the international conference on e-Inclusion of Youth at Risk to be held at Leuven on 13-14 September 2010 (INCLUSO Conference).

## 1.2 Projects

INCLUSO	<p>Tools for measuring the impact of social software tools on the evolution of in/exclusion of marginalized and disadvantaged youngsters.</p> <p>INCLUSO aims to deliver a verifiable proof that ICT, and more precisely, social software tools, can facilitate social inclusion of youth at risk. INCLUSO makes suggestions for future research and development, based on desk research, expert input and pilot projects in 5 countries (BE, NL, AT, PL, UK). Pilot activities include: Embed social software tools throughout the organization; Educate youngsters to go online safely; Improve communication and employability skills and promote active citizenship; Fostering social relations; Observing youngsters' online behaviour; Support counselling with social software, always; Online event organization; Working on personality with avatars; Explain benefits to staff; Bringing new clients to the organization.</p> <p>More information at: <a href="http://www.incluso.org/">http://www.incluso.org/</a></p>
ComeIN	<p>Using mobile online communities and specific interactive media content to facilitate social inclusion of marginalized youth of various backgrounds.</p> <p>ComeIN aims to improve the social inclusion of Marginalized Young people through the use of mobile platforms (specifically through an online community developed and aimed especially at MYP with low education attributes, specifically exploiting video and multi-media tools as tools to re-engage this group in learning); Analyze various marginalized youth groups across Europe; import the concept of Online Communities from the Internet to the mobile network; establish design specifications for the UI and for the content; create a mobile networked infrastructure that supports multimedia content; specify a user modelling architecture; assess the compatibility of the solution by means of two pilots.</p> <p>More information at: <a href="http://www.comein-project.eu/">http://www.comein-project.eu/</a></p>
REPLAY	<p>Gaming technology to help young people marginalized by their behaviour to be rehabilitated back into society.</p> <p>Replay aims at Developing a gaming technology platform to provide a learning/assessment environment to: reintegrate into society young people who have become marginalized due to anti-social behaviour (ASB); support experts and monitors involved in rehabilitation programmes; support teachers involved in ASB preventative programmes; motivate young people to use the latest interactive gaming technology; motivate young people to engage with educational activities; create a better awareness in young people of how and why they behave in the way they do; encourage young people to take greater responsibility for the consequences of their decisions and behaviour; provide experts with a pedagogically sound assessment tool.</p> <p>More information at: <a href="http://www.replayproject.eu/">http://www.replayproject.eu/</a></p>
HANDS	<p>Using/testing persuasive technology within mobile solutions to help teenagers diagnosed with autism to overcome everyday challenges.</p> <p>HANDS aims at developing customizable cognitive support tools for young people with autism based on Persuasive Technology. It is meant to help teenagers with an autism diagnosis to handle daily situations which they might find difficult handling themselves. The HANDS toolset is customized to the single individual with ASD, and furthermore as provided on a mobile terminal, it is available whenever and wherever problems occur. This makes it easier for the user to handle everyday situations such as using public transportation, shopping, visiting public spaces, etc. The result is a novel software solution based on hands-on practical knowledge combined with all the newest knowledge in modern human-computer interaction theory and psychology. It is implemented by software providers with key knowledge about the latest trends and platforms in mobile industry and virtual reality.</p> <p>More information at: <a href="http://www.hands-project.eu/">http://www.hands-project.eu/</a></p>
UMSIC	<p>Interactive environment and music to contrast risks of social isolation/exclusion of children (between 3 and 12) with social, emotional, learning and language disorders, weaknesses or disabilities.</p> <p>Neurological and related research gives evidence that the promotion of early competences in music and language are interwoven and beneficial for further development. UMSIC aims at providing ICT based solutions developed through participatory design where music is designed to enable children to enrich their communication, enhance social sharing and creative skills. The project develops extensible, modular and portable open source software.</p> <p>More information at: <a href="http://www.umsic.org/">http://www.umsic.org/</a></p>



## 2.0 Literature Review and Key Figures regarding YAR/MYP and ICT

According to current estimates, young people (aged 15-29) in the EU make up about one fifth of total population but this rate is expected to drop to 15.3% by 2050. Regarding levels of education achieved by these young people, "more than 50% of young Europeans between 25 and 29 have completed upper secondary education and 29% higher education" but "less than one third of young people who have a disadvantaged socioeconomic background, complete upper secondary".<sup>11</sup>

A possible working definition of Youth could be "the passage from a dependant childhood to independent adulthood" used by the working document accompanying the EC communication "Youth – Investing and Empowering".<sup>12</sup> The category of "youth" does not correspond to a simple quantitative dimension defined by age. Youth embraces a complex, multi-dimensional set of socio-economic, demographic and cultural dynamics that have as much to do with lifestyle and "lifeworld" as with chronology. Societies acknowledge the increasing maturity of young people – although maturity is itself subject to different interpretations.

Though young people's knowledge, consumer habits and opinions are seen as increasingly precocious in an ever more complex world, opinions differ as to whether this has led to greater maturity in terms of, for example, emotional development or healthy lifestyle. However, it should be noted that there is considerable evidence to suggest that the factors and processes that shape "e-exclusion" for young people kick in much earlier than age 16. As with definitions of youth, the concepts of social exclusion and social inclusion share a similar variability in definition and interpretation.

The European Commission<sup>13</sup> provides the following baseline definition for social exclusion: ".....a process whereby certain individuals are pushed to the edge of society and prevented from participating fully by virtue of their poverty, or lack of basic competencies and lifelong learning opportunities, or as a result of discrimination. This distances them from job, income and education and training opportunities, as well as social and community networks and activities. They have little access to power and decision making bodies and thus often feel powerless and unable to take control over the decisions that affect their day to day lives". Social inclusion is defined<sup>14</sup> as "a process which ensures that those at risk of poverty and social exclusion gain the opportunities and resources necessary to participate fully in economic, social and cultural life and to enjoy a standard of living and well-being that is considered normal in the society in which they live. It ensures that they have a greater participation in decision making which affects their lives and access to their fundamental rights."

### 2.1 Young People and Social Exclusion

Eurostat statistical analysis also acknowledges that social exclusion is 'a complex, multi-dimensional, multi-layered and dynamic concept', and uses the EC's definition of social exclusion. Besides, Eurostat uses five broad dimensions and sets of indicators to assess social exclusion: labour market exclusion; educational-related exclusion; health-related exclusion; housing-related exclusion and social networks. As an illustration, taking a selection of the indicators used by Eurostat and a sample of EU countries, it can easily be seen how the position of young people varies significantly in terms of their vulnerability to risk factors like labour market and educational inequalities.

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<sup>11</sup> "An EU Strategy for Youth – Investing and Empowering A renewed open method of coordination to address youth challenges and opportunities" 2009", COM(2009) 200 final.

<sup>12</sup> "Youth - Investing and Empowering", EU YOUTH REPORT, SEC(2009) 549 final.

<sup>13</sup> "Renewed social agenda: Opportunities, access and solidarity in 21st century Europe", COM (2008) 0412 final.

<sup>14</sup> "Renewed social agenda: Opportunities, access and solidarity in 21st century Europe", COM (2008) 0412 final.

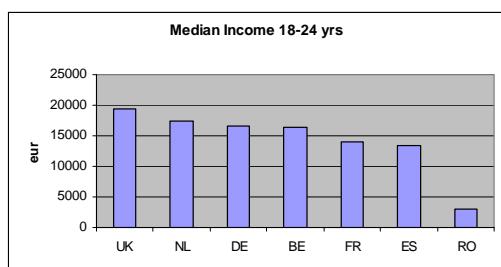


Figure 1: Median Income 18-24 years

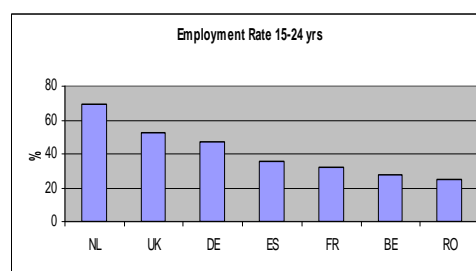


Figure 3: Employment rate 15-24 years

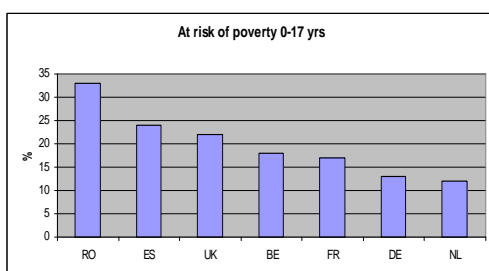


Figure 2: At risk of Poverty, 0-17 years

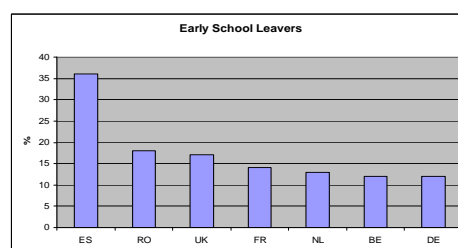


Figure 4: Early School Leavers

As Figures 1 to 4 show, on the one hand, that there are stark inequalities across the EU with regard to the position of young people across a number of key measures. In the UK, 30% of children are living in relative poverty with 17% in jobless households. 32% of young people up to age 17 years are at risk of poverty in Romania; 23% in Spain and 22% in the UK, whilst 35% are early school leavers in Spain, 17% in the UK and 16% in Romania. On the other hand, the figures show that there is no clear co-relationship between the different structural factors that are often thought of as not contributing to young people's exclusion and risk of exclusion. For example, though the UK has one of the highest median incomes for young people between the age of 18 and 24, it also has a high level of young people living in poverty and high level of early school leavers.

The broader picture of young people's position within the EU reinforces this illustration. The recent EC communication on youth estimates that "20% of young people aged 18-24 are at risk of poverty", and it calculates that 18% of young people aged 18-24 earn less than half the average income of the country they live in. Based on the latest Eurostat estimation for April 2009, the unemployment level of the age category under 25 runs at 18.7%, compared with the overall rate for all the EU 27 of 8.6%. Overall, it is estimated that more than one third of young people aged 15-24 are classified as NEET (Not in Education, Employment or Training). Whilst more than 50% of young Europeans between 25 and 29 have completed upper secondary education and 29% higher education, less than one third of young people who have a disadvantaged socioeconomic background, complete upper secondary. Figures from the renewed Social Agenda put at 19 million the number of young Europeans (age 0-17) at risk of poverty and at 6 million the number classified as 'school dropouts'.

So, on the basis of statistical information, like that drawn from Eurostat, and from research studies, there is considerable evidence that links young people's vulnerability to social exclusion to structural factors that lead to social deprivation, albeit often mediated through family practices (Coleman and Hendry, 1999; Schoon and Bynner, 2003). However, the risks of social exclusion for young people are multi-dimensional in nature. As the UK's Social Exclusion Unit put it: "Social exclusion is about more than income poverty. It is a short-hand term for what can happen when people or areas face a combination of linked problems, such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime and family breakdown. These problems are linked and mutually reinforcing" (SEU, 2004). Moreover, they are highly contextualized, and mediated through complex factors like the level of social cohesion and social support on offer.

On the one hand, it is suggested that sustained and repetitive exposure to social and economic ills – poverty; ill-health; upheaval; unemployment – itself saps the collective spirit and therefore ultimately increases the vulnerability of those exposed to social and economic pathologies (Elstad, 1998; Kreiger, 2004; Berkman et al,

2000). Conversely, some studies argue that environments characterised by highly developed levels of 'social capital' and 'social cohesion' do not suffer the effects of deprivation to the same extent as cultures in which "civil society" is less well-developed (Kawachi et al, 2000; Wilkinson, 1996; Lynch et al, 2000; Kunitz, 2001). In this regard, some writers sometimes refer to social exclusion as if it were a form of 'inheritance'. In the case of poverty, though experiences vary widely, fewer people break out of poverty cycles than is commonly believed. The research suggests that "Chronic poverty can be inherited from a child's parents and from the wider community or society." (Harper et al, 2003). Furthermore, there is some evidence to suggest that social exclusion leads to unintentionally self-defeating behaviour (Twenge, et al, 2002).

To summarise, the evidence from psychological and sociological research suggests that the factors that shape social exclusion and the risk of exclusion, for young people are complex and multi-dimensional. Structural factors play a significant part in these processes. There is strong evidence that many of the 'risk and exclusion scenarios' that preoccupy government, social services and education practitioners – like teenage pregnancy; homelessness; anti-social behaviour and early school leaving – are linked to social deprivation, albeit often mediated through family practices. Young people's welfare, risk behaviours and vulnerability to social exclusion are associated with their material, cultural and relational contexts, the resources and role models available, and the extent to which they feel connected, supported, recognized. This is linked to the social and cultural context in which they live, and can be influenced by the extent and nature of 'social capital' within their communities. Family background and relationships, peer groups and peer relationships in turn shape the symbolic processes and communicative practices that contribute to vulnerability and exclusion. These are in turn shaped by profound changes in lifestyle, consumption patterns, cultural discourses and perceptions of identity that are associated with post-modern culture and the emergence of the 'knowledge society'.

## **2.2 Young People and ICT**

There is no doubt that, overall, young Europeans in the 16-24 age groups enjoy widespread access to ICT, and that accessibility has been steadily increasing over the years. Based on Eurostat ICT household survey, currently only 5% of young people in the EU have never used a computer, and 73% use a computer every day. However, access to ICTs for young people varies considerably across member states, with a particular discrepancy between Northern European countries and Eastern countries.

One perspective maintains that these differences, and the implications they have for placing groups of young people who live in particular locations 'at risk' of exclusion, are likely to be short term – the result of differentials in technology diffusion and adaptation. At the macro-level, the 'Molnar model' suggests that 'lagging behind' countries will eventually catch up if policies are put in place to address the three 'moments' of the digital divide: access, usage and quality of use. At the individual level, the 'ladder of opportunities' model posed by Livingstone and Helsper (2007) offers the possibility that, in principle, differences in access and use of ICTs by young people will eventually work themselves out, as technologies become virtually ubiquitous in homes, schools, workplaces and communities, and as young people who have been left behind or are at risk acquire the skills to use them.

Similarly, if we look at usage and e-skills, overall, young people have acquired a greater range of digital competences than older generations. Moreover, factors like socio-economic status do not appear to influence the acquisition of e-skills for children who enjoy equal access to ICTs as their higher status peers, suggesting that skills acquisition, like access itself, is progressive. This notion of 'evolutionary progression' therefore has some basis in the evidence.

However, there is also evidence that contradicts this view. Gender factors influence how ICTs are used –boys apparently more easily adopt 'bedroom culture' behaviour that makes them more at risk to social isolation. There is some evidence that socio-economic status affects the frequency of ICT use amongst young people, with lower status groups using ICTs less, and also the use to which ICTs are put, with lower status groups spending more time on downloading music, videos and games, and less on education and civic activities, than their higher status counterparts. There is evidence also that young people from lower status backgrounds adopt more 'risk' behaviours than their higher status counterparts, and are more likely to be exposed to unsuitable and harmful on-line experiences.

Equally, the extent to which, and in what ways, these differences in ICT access, usage and quality of use amongst different kinds of young people in different 'lifeworlds' contribute to making young people more or less vulnerable to social exclusion, is not clear. There is currently both a conceptual and an evidence polarisation in the field between what might be termed the 'Utopian' and the 'Dystopian' perspectives. On the one hand, a number of commentators suggest that 'evolutionary progression' and the increasing ubiquity of ICTs embedded in everyday social, economic and cultural life, are making the notion of e-inclusion more and more redundant. They portray ICTs – and in particular the growth in the use of social networking applications by young people - as a strong force for good. Reflecting Giddens' ideas around 'dialogic reflexivity' (Giddens, 1994), it is argued that social networking and ubiquitous connectivity are promoting a new democratization movement driven by opportunities for grass roots involvement in knowledge creation, knowledge sharing, participation and decision-making – especially for young people.

On the other hand, critics like Facer and Furlong (2001) refer to the pre-eminence of the 'cyberkid myth' – the uncritical view that young people are somehow immune to problems around access to ICTs and digital literacy. In fact, there is strong evidence to suggest that significant numbers of young people remain at the margins of the 'knowledge society' – not least because the complexity and diversity of their lives, and their roles in a 'technologically rich' society, remain poorly understood. As one young rural girl who participated in their study put it: "Everything I do on a computer is a disaster anyway". Key obstacles militating against the inclusion of young people, and contributing to 'risk' of exclusion include cost; peer pressure; social context; attitudes towards computer use; difficulties accessing computers; a lack of relevance of computer technology to children's daily lives; and the potential of formal educational environments to exacerbate inequalities in access and anxieties around ICTs (Facer and Furlong, 2001; Facer and Selwyn, 2007). Figure 5 summarizes, for instance, the spectrum of potential patterns of eExclusion of young people that can be related either to a too intense use of ICT (stimulating isolation, "bedroom culture", potential radicalization) or to non-use of ICT for "off line" kids for instance (driving them to isolation, losing potential benefits of information society, exclusion from digital competences etc.).

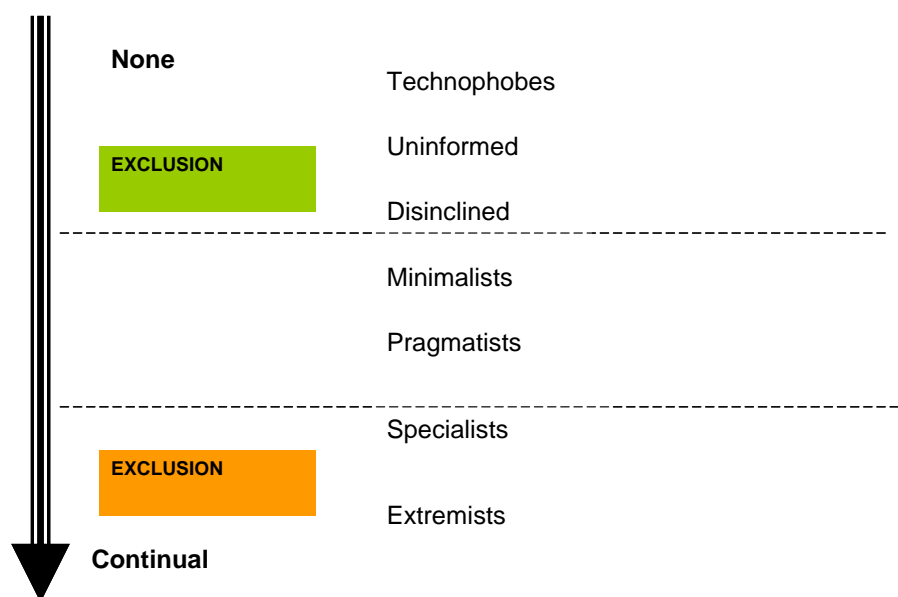


Figure 5: Spectrum of eExclusion of Young people

From our preliminary review of the literature, it is by no means clear whether the balance of evidence supports the utopian or the dystopian view. What is clear from our assessment of the landscape of ICTs and young people at risk is that the profiles of excluded and at risk young people; the factors that put them at risk or reduce risk; their ICT usage behaviours, and the effects of these behaviours on their life position are complex. Broadly, it seems that ICT 'risk' and 'exclusion' for young people is shaped by a number of complex inter-related factors and processes. At the baseline, factors like family and personal income will shape to some extent a young person's opportunity to be able to access ICTs in the first place. Factors like educational status and degree of family

support will shape patterns and frequency of use, and the level of skills a young person has acquired to engage with the technologies. Factors like peer group relationships; values and motivations and the 'lifeworlds' in which young people operate – the things that social capital theory refers to as habitus, capitals and fields – will in turn shape the use to which ICTs and e-skills are put. Finally, risk and exclusion will also be reflected through the ways in which young people are influenced by 'life politics' and the globalization of consumption, popular culture and lifestyles.

Finally the role of intermediaries and ICT-driven initiatives providing support to YAR/MYP should be detailed. From background research it is clear that ICT plays an important role in re-engaging YAR/MYP and preventing their social exclusion. Research also shows that non-technological components of ICT initiatives are crucial for their success. Many initiatives have been deployed to foster the socioeconomic inclusion of youth at risk through the use of ICT. Additionally, many initiatives working with/for YAR are using more or less ICT for their back office activities and for their direct interaction with YAR (to identify, track, reach, engage, and monitor their exchanges). Both uses (primary and secondary) of ICT are encompassed by the notion of "ICT-driven" initiatives.

As stated in a recent study,<sup>15</sup> the diversity of the socio-economic and socio-cultural factors that lead to risk situations for young people ensures that no "one size fits all" solution can be effective. Rather, a set of solutions that focus on different groups of young people, within a system that offers an appropriate social intervention to engage young people, is needed. The INCLUSO<sup>16</sup> project, which focuses on what social software can do for marginalized young people, shows that provision of digital technologies without appropriate human intervention is not effective for inclusion of NEET. Therefore there is a need to accompany ICT activities with sufficient social intervention (i.e. direct, face-to-face support from the support staff of the ICT-driven initiative such as youth workers<sup>17</sup>). In addition, there is a need to take into account the potential role of "multipliers" when developing activities oriented towards raising awareness, motivation and training of "intermediaries" and YAR/MYP. "Intermediaries" are professionals working with/ for YAR/MYP (youth workers, teachers, social assistants, health workers etc). "Multipliers" are people who play an informal role in passing knowledge to, and interacting positively with, YAR/MYP. They can be members of their families, intimate friends, community champions, or neighbours. They do not perform a professional duty when they interact with YAR/MYP but they do play an important role as "bridges" between YAR/MYP, ICT-driven initiatives and welfare services, for instance.

The need to take into account the role and importance of "human intervention" (intermediaries and multipliers) is possibly the one common finding and strongest recommendation of all the reports currently available. Researchers and practitioners agreed that the use of ICT alone does not translate into the social inclusion of YAR/MYP. This statement is verified by the fact that a very large number of young people are using ICT in a rather intensive way but nonetheless, the percentage of young people at risk of social exclusion has not diminished. Therefore the use of ICT has to be embedded in a pedagogical approach where human interaction enables the generation of trust, confidence, motivation and capacity to reengage with education, training and learning for YAR. This means that the importance of the role that ICT can play in the reengagement of YAR depends on their specific socio-economic characteristics, and the quality of life in the territory they inhabit. It also depends also on the organizational specificities and the methodological approach guiding the use of ICT by the initiative targeting them.

Anyhow, it should be also noted that there is very limited research that has been carried out and little systematic knowledge produced on the role and potential of ICT-driven initiatives in addressing YAR/MYP. While a significant number of activities are taking place, these seems to lack visibility and there is a lack of "know how", or structures to enable efficient networking, sharing and exchanging of good practices between the implementers of these initiatives. In addition, bottlenecks preventing greater cooperation between the stakeholders who make up

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<sup>15</sup> "Assessing the potential of e-learning to support reengagement amongst young people with Not in education, employment or training (NEET) status: An independent research and evaluation study" Background report, Passey, Williams, Colin, 2008.

<sup>16</sup> <http://www.incluso.org/>

<sup>17</sup> "The general aims of youth work are the integration and inclusion of young people in society. It may also aim towards the personal and social emancipation of young people from dependency and exploitation. Youth work belongs both to the social welfare and to the educational systems. In some countries it is regulated by law and administered by state civil servants, in particular at local level. However, there exists an important relation between these professional and voluntary workers which is at times antagonistic, and at others, cooperative", Peter Loritzen quoted by "The Socioeconomic scope of Youth Work in Europe", see: <http://youth-partnership.coe.int/youthpartnership/research/socioeconomicscopeofwork.html>



the ecosystem of professionals targeting YAR/MYP remain largely under-researched. Indeed, if one YAR/MYP is interacting with different stakeholders trying to support and reengage him/her, shouldn't the stakeholders be enabled to exchange between them useful information regarding the circumstances of this YAR/MYP? But here of course, privacy issues arise as some marginalized people base their daily survival in interacting with different stakeholders, knowing that those not usually exchange information among them. As interaction between stakeholders can, in these cases, have major repercussions on YAR/MYP lives, all possible outcomes should be carefully analyzed beforehand. More knowledge on how these organizations cooperate (if they do cooperate) and how ICT can facilitate the exchange of useful information between ICT-driven organizations, youth workers, intermediaries, policymakers and YAR constitute an important part of enabling supportive cross-cutting actions among different policies addressing YAR.

## 3.0 EU Policy Context

At the EU level there are four broad policy fields addressing YAR/MYP: policies specifically focusing on young people, policies on social inclusion, policies on education and training, and other policy fields such as health and regional policies related to social inclusion.

### 3.1 Policy Fields targeting YAR/MYP

#### > Youth policy

The key EU policy platform on youth is the 2009 [Council Resolution on a new EU Youth Strategy, entitled "A renewed framework for European cooperation in the youth field \(2010-2018\)"](#). Through the resolution, the Member States commit themselves to pursue the two objectives of the strategy: create more and equal opportunities for all young people in education and in the labour market, and to promote the active citizenship, social inclusion and solidarity of all young people. The EU Youth Strategy includes a total of eight 'fields of action': education & training, employment & entrepreneurship, health & well-being, social inclusion, participation, voluntary activities, culture & creativity and youth & the world. A number of implementation mechanisms are outlined and should be used in implementing the strategy. These are (a) knowledge-building and evidence-based youth policy, (b) mutual learning, (c) progress reporting, (d) dissemination of results, (e) monitoring of the process, (f) consultations and structured dialogue with young people and youth organisations, and (g) mobilisation of EU programmes and funds.

The European Commission's 'Youth in Action' programme is supporting youth exchanges and voluntary activities in the field of non-formal learning, and gives tens of thousands of young people every year the opportunity to become involved in their societies and to gain multicultural experiences through their participation. Of around 200 projects funded under the 2008 centralised call for multi-national Youth in Action projects (not including those projects supported under national calls), a substantial number reflected initiatives aimed at supporting marginalised and at risk young people.

#### > Social inclusion policy

Since 2000, the EU strategy on social inclusion has been driven by the Open Method of Co-ordination (OMC). This sets out high level, shared goals on inclusion, the definition of a set of common indicators to enable the monitoring of progress towards the common objectives, the preparation by Member States of National Strategic Reports (formerly called National Action Plans) translating the agreed objectives into concrete policies, and the joint assessment of progress and of policy efforts by the European Commission and the Member States in the framework of the Social Protection Committee. The OMC is supported operationally by the European Social Fund. Although neither OMC nor ESF objectives explicitly target young people at risk, the over-arching objectives of ESF broadly support the inclusion of young people, and specifically aim to support the occupational integration of young people, as well as promoting and improving training, education and counselling as part of the lifelong learning policy to: facilitate and improve access to, and integration. OMC and ESF also support an action programme (PROGRESS) to underpin and reinforce the process of operationalising Objective 1 of the OMC – social protection and inclusion – although our analysis of the most recent funding round in PROGRESS showed a very small proportion of projects funded covering young people.

#### > Education and training policy

The main EU E&T policy instrument is the [strategic framework for European cooperation in education and training \("ET 2020"\)](#). It sets key targets for the education of young people in the EU, covering: At least 95% of children between the age of four and the age for starting compulsory primary education should participate in early childhood education; the share of 15 year olds with insufficient abilities in reading, mathematics and science should be less than 15%; the share of early leavers from education and training should be less than 10%. The strategic framework takes a holistic approach education and training, one that explicitly links education objectives to social inclusion, with an emphasis on: improving young people's numeracy and literacy and reducing the number of early school leavers. Specific initiatives targeting young people at risk are: addressing homelessness, housing and financial exclusion (which affects young people more than other at risk groups); developing out of

school learning to help early school leavers; promoting a greater diversity of young people in representative democracy, in youth organisations and other civil society organisations; providing access to environments where young people can develop their creativity and interests and spend meaningful leisure time.

The education and training policy field is also one of the main sources of funding for programmes and projects aimed at addressing issues around young people at risk – particularly through the Lifelong Learning Programme (LPP). However, the emphasis placed on young people and those at risk varies across the sectoral and transversal sub-programmes of the LLP. The ‘compulsory education sector’ sub-programmes - Comenius and Erasmus – with their focus on schools and higher education naturally prioritise young people. Of the eight action lines in the current Comenius programme, one is specifically dedicated to addressing socio-economic disadvantages and reducing early school leaving. Leonardo concentrates on mobility and transfer of innovation, and social inclusion and young people at risk are not prioritised. A smaller share of funding within Grundtvig (adult learning) targets young people and an even smaller share goes to young people in the case of Leonardo (vocational training). Similarly, the transversal sub-programmes in the LLP – Key Actions 1 to 4 – vary in the allocation of funding aimed at young people, with the highest proportion in Key Action 3 (ICTs).

### > Other policy fields

The other EU policy fields where there is a focus on at risk young people are in health and regional policy. These fields are less widely developed than in youth policy, social inclusion policy and education and training. The main areas where young people figure prominently in EU health policy are in mental health; sexual health and substance misuse. The 2008 ‘European Pact for Mental Health and Well-being’ addresses problems affecting the inclusion of young people, like depression, and centres on a Framework for exchange and cooperation, and a platform to issue recommendations, identify good practices, and work towards action plans. As noted above, regional policy on young people at risk has been largely devolved to member states through the OMC and ESF actions like ‘EQUAL’ and ‘PROGRESS’.

## **3.2 EU Policy on Youth, ICTs and Inclusion**

### > The Open Method of coordination

Since 2000, the EU strategy on social inclusion has been driven by the Open Method of Co-ordination (OMC).<sup>18</sup> In 2006, the OMC for Social Protection and Social Inclusion was redefined and now includes all the three strands: social inclusion, health care and long-term care and adequate and sustainable pension system. The OMC is supported operationally by the European Social Fund. Although neither OMC nor ESF objectives explicitly target young people at risk, the over-arching objectives of ESF broadly support the inclusion of young people, and specifically aim to support the occupational integration of young people, as well as promoting and improving training, education and counselling as part of the lifelong learning policy to: facilitate and improve access to, and integration. Equally, though ICTs are not explicitly prioritized either in the OMC nor the ESF, ICTs have often been prioritized in actions aimed, for example, at the re-insertion of unemployed youth in the labour market, as demonstrated in National Action Plans (NAPs)/National Strategic Reports on social exclusion, drawn up by Member States. Indeed, analysis of the inter-relationships between OMC and ESF<sup>19</sup> reveals that target groups are particularly represented by unemployed youngsters, youth at risk of school dropouts and other young people at risk of social exclusion.

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<sup>18</sup> “The Open Method of Coordination comprises an agreement on EU common objectives, setting out high level, shared goals to drive the entire process, the definition of a set of common indicators to enable the monitoring of progress towards the common objectives, the preparation by Member States of National Strategic Reports (former called National Action Plans) translating the agreed objectives into concrete policies, and the joint assessment of progress and of policy efforts by the European Commission and the Member States in the framework of the Social Protection Committee”, *Commission staff working document accompanying the Communication from the Commission to the European Parliament, the Council. The European Economic and Social Committee and the Committee of the Regions “A renewed commitment to social Europe: Reinforcing the Open Method of Coordination for Social Protection and Social Inclusion”*, Impact Assessment, July 2008, page 4.

<sup>19</sup> Instituto per la Recerca Sociale and the Tavistock Institute (2010) ‘Ex-post evaluation of the 2000-2006 ESF support to the Open Method of Co-ordination in social protection and social inclusion’, Brussels.

## > Europe 2020 Strategy

A key recent EU policy initiative that will affect the complex inter-relationship between youth at risk and ICTs is the Europe 2020 Strategy - A strategy for smart, sustainable and inclusive growth – (COM(2010) 2020). This was launched in March 2010 to prepare the EU economy for the next decade, and later endorsed by the EU Member States. One of the key priorities and performance targets for the strategy shows how central the position of young people is to current thinking on how to rescue EU economies from recent recession and financial crisis. A key target for the next decade stipulates that: "The share of early school leavers should be under 10% (from today's 15 %) and at least 40% of the younger generation should have a tertiary degree (as opposed to 32 % today)".

One of the seven flagship initiatives in the strategy is called "Youth on the move", designed to enhance the performance of education systems and to facilitate the entry of young people to the labour market. The aim is to enhance the performance and international attractiveness of Europe's higher education institutions and raise the overall quality of all levels of education and training in the EU, combining both excellence and equity, by promoting student mobility and trainees' mobility, and improve the employment situation of young people.

## > Education and Culture

The EU Member States and the European Commission strengthened education and training co-operation in 2009 with the [strategic framework for European cooperation in education and training \("ET 2020"\)](#) a follow-up to the earlier Education and Training 2010 work programme launched in 2001. The long-term strategic objectives of EU education and training policies<sup>20</sup> are: making lifelong learning and mobility a reality; improving the quality and efficiency of education and training; promoting equity, social cohesion and active citizenship; enhancing creativity and innovation, including entrepreneurship, at all levels of education and training. EU Education and Culture policy is closely tied to the EU Youth Strategy, 2010-2018. As an illustration, the main youth programme – 'Youth in Action' is managed by the European Commission's Education and Culture Directorate-General (DG EAC). Thus, education and culture policies are adopting a holistic, joined-up approach that integrates youth issues with inclusion and ICT, packaged within a 'learning' emphasis as a means of unlocking creativity and innovation.

## > e-Inclusion policy

EU e-inclusion policy is a recent phenomenon. Vision underpinning digital exclusion measures in the EU and the Member States is closely linked to dominant approaches, strategies and models at these governance levels to social inclusion in general. This is the case because digital or 'e'-inclusion is in reality a new dimension of social inclusion rather than being separate from it. Indeed, the 'digital divide' has been described by some authors as a new form of social exclusion. "The specific form of exclusion is both seen as a *result* of [...] social exclusion (those who suffer from a lack of financial resources, skills or capabilities will also have trouble accessing ICTs and handling the information that is accessible through ICTs) and as a *factor that will aggravate* the other dimensions of social exclusion."<sup>21</sup> This link is further demonstrated by the fact that the National Action Plans (NAPs)/National Strategic Reports on social exclusion, which the Member States drew up as part of the Open Method of Co-ordination on social inclusion (OMC/inclusion), contain a section on digital inclusion.

In November 2007, the Commission adopted the Communication "European i2010 initiative on e-Inclusion - to be part of the information society". There are two main elements of the initiative: firstly, a strategic framework for action to implement the Riga Ministerial Declaration, and, secondly, an e-Inclusion campaign "e-Inclusion, be part of it!" The strategic framework ultimately aims at better e-Inclusion impact through a coherent set of actions in three areas:

- Enabling the conditions for everyone to take part in the information society. This aspect was primarily addressed through initiatives to address three perceived 'gaps': in broadband; accessibility and digital competences.

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<sup>20</sup> All of these aims place a central focus on young people and will affect their social, economic and political position. However, it could be argued that education and training policies are focused primarily on the 'younger' age group and not on the 16-25 year age group. This is illustrated by the 'benchmarks' set for EU E&T policy for 2010: At least 95% of children between the age of four and the age for starting compulsory primary education should participate in early childhood education; the share of 15-years olds with insufficient abilities in reading, mathematics and science should be less than 15%; the share of early leavers from education and training should be less than 10%; the share of 30-34 year olds with tertiary educational attainment should be at least 40%; an average of at least 15 % of adults (age group 25-64) should participate in lifelong Learning.

<sup>21</sup> Brants, K and Frissen, V. (2003) *Inclusion and exclusion in the Information Society*, Final deliverable, The European Media and Technology in Everyday Life Network, 2000-2003, p. 5.

- Accelerating effective participation of groups at risk of exclusion and improving quality of life. This aspect was addressed through: targeting socially disadvantaged through public e-services; addressing ageing, health conditions and disability in the information society; exploring ICT-enabled opportunities for marginalised young people and migrants at risk of exclusion.
- Integrating e-Inclusion actions to maximise lasting impact. This aspect was addressed through: enhancing and sustaining impact through mainstreaming and co-ordination; improving understanding and comparing progress of e-Inclusion (particularly through developing a set of relevant indicators: the 'Riga Dashboard'.<sup>22</sup>

As indicated above, the problems of marginalised and at risk young people were specifically highlighted in the 'accelerating effective participation' element of the strategic framework. Two forms of action were identified by the strategic framework to support this process. First, the Commission called on Industry and authorities in European countries to explore the potential of new technologies to enable innovative services and empower people in particular young people at risk of exclusion, migrants and cultural minorities, notably through multilingual and adapted content. Secondly, the Commission re-iterated a commitment to support new areas of e-Inclusion relating to at risk and excluded young people through exchange of practices and targeted projects in the EU research and deployment programmes (FP7 and ICT-PSP).

### 3.3 EU Programmes on Youth

Table 13 below summarises the main EU programmes that provide a contribution to policy and initiatives aimed at young people. The Table also shows the relative contribution each programme makes in terms of its overall budget. As the Table shows, the key programmes supporting young people are the 'Youth in Action' programme and the various components of the Lifelong Learning Programme. In the case of the LLP, the orientation of two of the four sectoral programmes – Comenius and Erasmus– to schools and higher education mean that in principle all funding within these sub-programmes targets young people. Of the eight action lines in the current Comenius programme, one is specifically dedicated to addressing socio-economic disadvantages and reducing early school leaving. In the case of Leonardo (vocational training), only 1 of the projects selected in 2009 specifically targeted young people, and in the case of Grundtvig (adult learning), around a third of the projects selected covered young people.

Programme	Tot funding (m euro)	YP projects	YP funding (m euro)	% YP	Year
Youth in Action	269.1	NA	269.1	100.0	2007-2008
Comenius	14.73	48	14.73	100.0	2009
Erasmus	27.36	58	27.36	100.0	2009
Leonardo	21.43	1	0.53	100.0	2009
Grundtvig	22.6	20	7.5	33.2	2009
LLL - KA1	5.2	7	0	0.0	2009
LLL - KA2	12.9	26	1.82	14.1	2009
LLL - KA3	15.84	31	2.79	17.6	2009
LLL - KA4	3.5	10	0.1	2.9	2009
Culture	17.3	10	2.2	12.7	2009
FP7 Health	6100	9	19.4	0.3	2006-2009
FP7 ICT	9100	5	9	0.1	2006-2009
FP7 SESH	130	5	5.31	4.1	2009
PROGRESS	743	3	1.826	0.2	2009
<b>Total</b>	<b>16482.96</b>		<b>382.566</b>	<b>2.3</b>	

Table 1: Spending on EU youth programmes

<sup>22</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/benchmarking/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/benchmarking/index_en.htm)

## 4.0 Common Research and Policy Recommendations

The following tables present a synthesis of research (Table 2) and policy options (Table 3) proposed by each project in between the first and the second concertation meetings. Colours were used in an attempt to cluster proposals together. This document was used during the second concertation meeting to discuss each proposal and reach a consensus on the priorities for the 5 projects. The following detail of the consensus building session provides an in-depth explanation of these options. Original phrasing and specific words used by each project have been respected in order to ensure that research and policy options are not misrepresented. Finally, it should be noted that each project had a different number of participants: this number of people is reflected in the number of research and policy options proposed. During the second concertation meeting (11 June 2010) each participant was requested to explain 2 research and 2 policy proposals in order of importance. However, if the different project representatives repeated the same research and/or policy options proposals, these are presented only once in this document. Finally, the order of appearance of the 5 FP7 projects is related to the chronological order in which they sent their proposals.

### 4.1 Research Options

INCLUSO / tools for measuring the impact of social software tools on the evolution of in/exclusion of marginalized and disadvantaged youngsters, tested in 4 pilot projects	ComeIN / using mobile online communities and specific interactive media content to facilitate social inclusion of marginalized youth of various background	REPLAY/ gaming technology to help young offenders learning from their experience, rehabilitating and integrating into society	HANDS / using/testing persuasive technology within mobile solutions to help teenagers diagnosed with autism to overcome everyday challenges	UMSIC/ interactive environment and music to contrast risks of social isolation/exclusion of children with social, emotional, learning and language disorders, weaknesses or disabilities
ICT use by/for intermediaries and YAR	Mobile platforms, informal learning and MYP	Serious games for YAR (Youth At Risk)	Persuasive technologies and ethics	ICT for learning for pre-school and young children
1. Definition of YAR + YP not using ICT	1. Longitudinal datasets regarding use and testing of mobile platforms by marginalized groups	1. Versatile, interoperable applications with various contents related to YAR	1. Persuasive Meta application	1. Specific use of digital tools by very young children
2. ICT use by MYP + most important issues of marginalization that can be addressed using ICT	2. Better definition of soft skills and how to measure them	2. Management and evaluation tools to monitor progress of YAR	2. ICT use by YAR	2. Reaching and involving parents, schools and other stakeholders
3. ICT as a factor of marginalization of YP	3. ICT applications for 14-16 and 17+ in informal learning environments	3. Longitudinal datasets evaluation of impact serious games	3. Longitudinal datasets of ICT uses by YAR	3. Participatory design, feed back, evaluation and assessment of ICT
4. 2.0, Social computing as driver for social inclusion of MYP	4. Use of SNS to develop digital literacy and to engage MYP	4. Transferability of collaborative gaming experience for different targets (gender, IEM, age, disabilities etc.)	4. New pedagogical methods with mobile platform	4. Motivation and resistance to use those tools
5. Current ICT-driven initiatives targeting MYP - Exchange on Good Practices	5. Reaching, engaging MYP with ICT applications		5. Participatory design on mobile tools based on ethics	5. Transferability of ICT musical applications towards other end users
6. EU standards for ICT (social computing) for YAR	6. Research regarding pedagogical approach including mobile devices for MYP			
7. Social network analysis to measure bonding/bridging Social Capital	7. Transferability of ICT solutions for other marginalized groups			
8. How to reach, engage and get feed back from YAR?	8. Identification and Prevention of marginalization at younger age			

Table 2: Research Synthesis

- INCLUSO

- 1) **How can we create safe environments with respect for privacy and security in a legally sound society?**

*Social Networking Sites (SNS)* constitute a very grey zone regarding issues of security and privacy related to development, exploration and self-display of electronic Identities, especially for YAR/MYP, kids and minors. More research on specific challenges and targeted ICT-based solutions would help intermediaries to use wisely SNS when interacting and working with YAR.

- 2) **How can organizations use *social return on investments (SROI)* to motivate to invest in ICT tools?**

There is a need for research that intends to demonstrate how ICT tools can deliver a proof of social return on investment, inside organizations and public institutions dealing with YAR/MYP in order to motivate those to invest in ICT.

- 1) **Researching throughout Europe on the needs that exist for specialised tools for intermediary organisations in order to address them by developing adequate ICT tools for working with YAR.** An example of such tools includes for instance '*walled garden*' online communities that support the work of intermediaries working with YAR. One hypothesis to be also explored is that a lot of funding to design those tools could be saved within the intermediary organisations if there was more joint development and if those developments were based upon open source software and related to existing EU standards.

- 2) **How to focus and integrate participatory and socio-technical design when developing new ICT tools that support the interaction between intermediary organisations and the young people they work with?**

In order to ensure that the benefit of the social interactions taking place through these media between YAR and intermediaries are maximised there is a need for better understanding how both parties can be involved in the design of the ICT tools they are using for interaction.

- Comeln:

- 1) **Which features should be developed to support MYP in enhancing their communicational skills and capabilities?**

One dimension relates to methodologies and ICT-solutions for *traceability of content production* by MYP, more knowledge on this should help in better understanding their motivations and resistances to produce personal content and which type of outcomes this production is having on their communication skills.

- 2) **Which tools are appropriate for facilitators?**

Facilitators, youth workers and other intermediaries working with and for YAR/MYP need to access specific training and ICT-solutions in order to improve their work. Regarding "facilitation" tasks, flexible, easy and timely connection to targeted information, peer opinion and online consultation can make the difference when advising or helping a YAT/MYP. How can they use ICT/mobile for their work online and offline? Some pilot experiments on *Immersive worlds* such as Second Life could constitute initial research lines.

- 1) **How to improve the transferability of findings regarding one target group towards other marginalized groups?**

When a ICT-based solution has been designed bearing in mind specific issues/problems endured by one target group of YAR/MYP, there can be room for potential transferability towards other target groups (e.g. for instance from youth diagnosed with autism towards hyperactive children). Nevertheless methodologies to assess and enable this transferability are under-researched and it is unclear which stakeholders could sustain transferability processes.

- 2) **How to involve YAR/MYP in participatory design, authoring, production of contents?**

The dynamics of authoring and content production are already taking place in *SNS* and other user-driven rich multimedia environments, how to make good use of them in order to involve YAR/MYP in participatory design of ICT they use and apply it towards other contexts related with (in)formal learning?

- 1) **How can we use SNS to develop the digital competences and digital literacy (in formal and informal learning) of MYP?**

Even though some research as shown that MYP/YAR are more vulnerable to dangers taking place online, specific uses and outcomes developed by them still constitute an under-researched area in the widely populated study field of young people's uses of SNS.

- 2) **Which pedagogical approaches with MYP can/should be applied by "intermediaries" (youth workers, teachers) using mobile phones?**

The use of mobile phones and text messaging to keep track, exchange and counsel YAR/MYP is already been used by many intermediaries. However, the latter are facing several problems related to costs, time consuming (24/7) and specific difficulties related to counselling tasks mediated strictly through oral/text exchanges with YAR. More research upon practices and outcomes would be useful.

- 1) **How can we develop pedagogy and training (intermediaries) to better use ICT to work with YAR?**

Previous literature review and the experience expressed by several participants during the concertation meetings has pointed at the importance of targeting intermediaries working with YAR/MYP and acknowledging that those lack of resources, digital competences and pedagogical training in order to take full advantage of ICT based solutions within their current practices.

- **REPLAY**

- 1) **How to use ICT (gaming, SNS, mobiles, applications) to reach, engage, connect and improve the life of MYP?**

How passion, interest and enthusiasm of many young people for gaming (using various types of ICT support to do so) can be leveraged in a way that builds socio-economic benefits beyond the experience of entertainment playing the game?

- 2) **Is it possible to develop versatile interoperable application connecting people developing things individually and in isolation?**

By interoperable we refer to customizable, highly usable, accessible, open source applications that are based on quality contents. The aims are in one hand, to create a better environment for the rapid development of high quality games and applications, and on the other hand, reducing development costs as this is a key issue to stimulate a business model allowing gaming technology to move more towards educational/social spaces

- **HANDS**

- 1) **How to develop *persuasive* meta-application interoperable across platforms?**

*Persuasive technologies* that create a behaviour change should be customizable to individual specific needs in order to insure users have the possibility to participate and contribute to the interactivity between them and persuasive ICT they are using. Nevertheless, more research on interoperability and customization (personalization) of persuasive applications is required.

- 2) **How to exploit opportunities for new pedagogical methods (for professional/intermediaries) using mobile devices?**

How social workers, youth workers, teachers and other intermediaries can take full advantage of mobile devices when tracking, interacting, supporting, counselling and in general working with YAR/MYP? This area requires more research in order to identify bottlenecks and opportunities.

- 1) **How to enable customization and adaptation of ICT to individual needs by developing persuasive applications for caretakers and for pupils?**

This idea focuses on the idea that an application of "one size fits all" could be developed to fit the needs of intermediaries working with YAR/MYP, but those applications should allow customization by the single pupil and by the teacher/caretaker. In order to achieve those several levels of customization, a strong recommendation is to research on already available applications for downloading and use, and the role of open source and standards in enabling their customization/adaptation to individual needs.



- UMSIC

1) Which are the motivations and strategies involved in learning digital skills depending of various ages (profiles of uses)?

In one hand, the idea is to produce more knowledge regarding motivations and resistances to gain ICT skills, Digital Literacy and Digital Competences by YAR/MYP. On the other hand, motivations and resistances should be highlighted depending of age brackets and creating separations between pre-school kids, school kids, pre-adolescents, adolescents, young adults and so on.

2) How can we reach and involve secondary users (henceforth "intermediaries" - caretakers, teachers- and "multipliers" - parents) in better using ICT in order to avoid or reduce the digital gap between generations in education?

How can we reach out and engage other generations into using ICT for their relationships with young people? Which specific methodologies and initiatives could be developed to achieve higher levels of digital competences by intermediaries and other multipliers in order to develop better communication and interaction with YAR/MYP?

## 4.2 Policy Options

INCLUSO / tools for measuring the impact of social software tools on the evolution of in/exclusion of marginalized and disadvantaged youngsters, tested in 4 pilot projects	ComeIN / using mobile online communities and specific interactive media content to facilitate social inclusion of marginalized youth of various background	REPLAY/ gaming technology to help young offenders learning from their experience, rehabilitating and integrating into society	HANDS / using/testing persuasive technology within mobile solutions to help teenagers diagnosed with autism to overcome everyday challenges	UMSIC/ interactive environment and music to contrast risks of social isolation/exclusion of children with social, emotional, learning and language disorders, weaknesses or disabilities
ICT for intermediaries working with YAR	eInclusion for YAR	Promotion of ICT for education and learning	eInclusion for YAR	Music and ICT for education and learning
1. ICT R&D for intermediaries working with YAR (ICT use in different steps of working with YAR)	1. EU definition of marginalization and/or at risk of social exclusion	1. Promotion ICT-based educational and pedagogical applications/games towards MS and regions	1. Use Mobile devices as customizable as possible to reach out YAR	1. Music and ICT for playful and educational learning environments in pre-school
2. Promote ICT and social computing for intermediaries and organizations working with YAR	2. A communication on access to ICT for YAR and marginalized groups (not only young) + access to education and learning for MYP and YAR	2. Promote and support large scale evaluation of those ICT applications involving also young people	2. Use well known tools, applications and standards	2. Facilitate access to internet for all, everywhere, anytime
3. Promote Open standards , Open Source, Open Architectures, Build on what exists (e.g. open data fro private industries)	3. Facilitate access to internet (WIFI) for all, everywhere, anytime	3. Creation of a European "stamp of approval" for promotion and recommendation of valid ICT applications	3. Business models should be based on user-driven innovation control and diminish influence from technology vendors	
4. Promote collaboration with MS with less eInclusion initiatives	4. Ethics regarding data monitoring inside MS	4. Promote creation of international panel of experts in serious/social gaming	4. Organization of an Ethical approval of further research	
5. Promote committees dealing with ethical issues regarding ICT and Young People				
6. Promote spreading and coordination between good practices on the field				
7. Promote social return on investment and sustainability of successful projects and ICT applications fostering socioeconomic inclusion of YAR				

Table 3: Policy Options

- NCLUSO

- 1) **Promote *open standards*, open architectures, *open source software* and free access to ICT and Internet for all, everywhere.**

Regarding eInclusion policies and programmes insure that funding towards initiatives privilege the use of open standards and software in order to make easier interoperability, customization and joint development. Besides, the use of open licenses insures that knowledge and services produced remains in the public sphere and can be acceded, used and improved by anyone.

- 2) **Building upon existing use of ICT by community, networks, and welfare organizations working with YAR/MYP.**

Don't reinvent the wheel before knowing the current state of the art in the field. If you are planning to fund new ICT-development, check if past or current available solutions are already taking place. Privilege funding towards already existing projects which are showing positive socio-economic outcomes. If existing organizations, working with YAR/MYP are interested in embedding ICT in the organization practice, enable and support them to achieve this. In order to do so, some participants also pointed at the interest of sending EU officials for brief missions in the field work with organizations working with YAR/MYP. This process would help them to better understand conditions, challenges and opportunities that exist in these initiatives.

- Comeln

- 1) **More places to access to the web for all, all places, all time and use available public resources of connection meanwhile they are not used.**

eInclusion policies should increase the impact of initiatives aiming to ensure free access for all to Internet as this access is still perceived as too deficient and dependent on the socio-economic characteristics of users. On the other hand, there is a need for a better use of available public resources for connection and hosting. An example of this could be to apply *grid-computing* to distribute free internet connection to wifi public networks when not is use, or stimulate free hosting inside public servers.

- 2) **A definition of YAR/MYP by the EC.**

This would demonstrate a policy understanding that would allow practitioners to better classify marginalisation. This is deeply related to ensure more public support for available quantitative and qualitative data regarding YAR/MYP, inasmuch as the development of indicators to measure marginalization effects and costs.

- 1) **eInclusion policies should keep promoting access but also stimulate more the build up of skills and quality of use through initiatives that develop digital competences.**

eInclusion initiatives to enable access for all are still required, but there is evidence that more initiatives to develop Digital Competences are also required in order to help YAR/MYP to take full advantage of ICT and be part of current and future European information societies.

- 2) **More policy to protect Young People (and therefore also MYP/YAR) against the dangers of being too eIncluded.**

Participants agreed that social exclusion and ICT are related in many forms. One form of social exclusion caused by ICT is related to a too intense use of them. For instance, some young people only stick to virtual communities, are addicted to videogames, or have a bedroom culture and this could result in exclusion caused by a mal/misuse of ICT. Therefore there is a need for initiatives to reinforce links between reality and virtual life for young people, and for policymaking that take into account this type of exclusion.

- 1) **Promote learning alternatives using mobile devices for the acquisition of *soft skills*.**

Regarding YAR/MYP uses of mobile devices, important and positive outcomes can be achieved in order to improve their soft skills such as self-confidence, self-esteem, communicational capabilities and capacity to work in a team environment. These soft skills help YAR/MYP to gain autonomy and empower themselves and also foster their socio-economic inclusion. Mobile devices should therefore be promoted in order to foster those uses and outcomes.

- 2) **Promote governance regarding ethical issues related to the use of ICT when working with YAR/MYP.**  
There is a need for more policies taking into account ethics in the governance of ICT development and use when working with YAR/MYP. Freedom and ethics developed by non profit initiatives such as *wikipedia*<sup>23</sup> could be applied by public organizations targeting YAR/MYP.

- **REPLAY**

- 1) **Promote and support the use of ICT among intermediaries working with YAR.**  
To do so, it would be good to clarify the confused relationships between educational and social agents working with young people, in order to make it possible to get all these organizations on board and train them to embrace ICT satisfactorily. Many problems of non-use or low use of ICT by intermediaries are related to how YAR/MYP use themselves ICT, making some people who work with YAR feel that it is the technology which has contributed to the problem; and/or making them feel that their lack of familiarity with technology might undermine their authority so that they are resistant to using it in their work.
- 2) **Promote the sharing of Good Practices (GP) in the field of ICT for YAR/MYP, ensuring the coverage and full involvement of all stakeholders (commercial, non profit, industries, etc).**  
There are many conferences/papers showing how new technologies might work but there are few studies regarding good practices with technologies that have been embedded into application areas for some time and are actually working. Some policy in order to promote the identification and analysis of GP should easiness networking and awareness rising by stakeholders dealing with YAR/MYP on the positive outcomes of using ICT to reach and re-engage YAR/MYP.

- **HANDS**

- 1) **Promote the use of ICT and SC by/for intermediaries working with YAR/MYP through more proper training and support to use in a positive way ICT development and new innovations.**  
As already underlined, there is a need for more support to intermediaries working with YAR/MYP to train them to the use of ICT and to improve their knowledge on how they can use ICT in their daily work to deliver better services targeting YAT/MYP.
- 2) **Use mobile devices that can be customizable as much as possible in order to reach and engage YAR.**  
Promote the development of open and customizable applications rather than close and non interoperable applications in the field of ICT development for MYP/YAR.
- 3) **Focus on mobile platforms to work on the development of social skills by YAR/MYP.**  
Mobile platforms are increasingly uptake and use by YP, therefore policies aiming at increasing the development of social skills by YAR/MYP should take strongly into account strongly the current and potential role played by those mobile devices in fostering those skills.

- **UMSIC**

- 1) **Promote ICT in education at all levels, for all categories of users, kids, elderly and intermediaries.**  
Policy-making should keep on supporting eInclusion initiatives aiming at fostering digital competences for all. Those policies should take into account the targeting of new categories of groups regarding digital inclusion such as kids and intermediaries working with YAR/MYP for instance.
- 2) **More places to access Internet for all, anywhere, anytime.**  
eInclusion policies should increase the impact of initiatives aiming at ensure free access for all to the Internet as this access is still perceived as too deficient and dependent of the socio-economic characteristics of users.
- 3) **Promote social return on investment and sustainability of successful projects and ICT applications fostering early education and learning.**  
Policy-making should take into account positive outcomes and demonstrated socio-economic impacts of already funded ICT-solutions and initiatives targeting YAR/MYP when planning new programmes and

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<sup>23</sup> For more information regarding governance and ethics in Wikipedia, see [wikipedia five pillars:   
http://en.wikipedia.org/wiki/Wikipedia:5P](http://en.wikipedia.org/wiki/Wikipedia:5P)

funding. To achieve so, clearest guidelines and indicators to develop the socio-economic impact assessment of ICT should be supported from eInclusion policies.

### 4.3 Consensus Building and Prioritization of Research and Policy Options:

Figure 6 lists the different areas of Research and Policy options referred to by the 5 FP7 projects. Order of appearance is related to the number of time the proposal has been formulated by the 5 projects. Colours are the same than the ones used in the clustering tables introduced in pages 15 and 18.

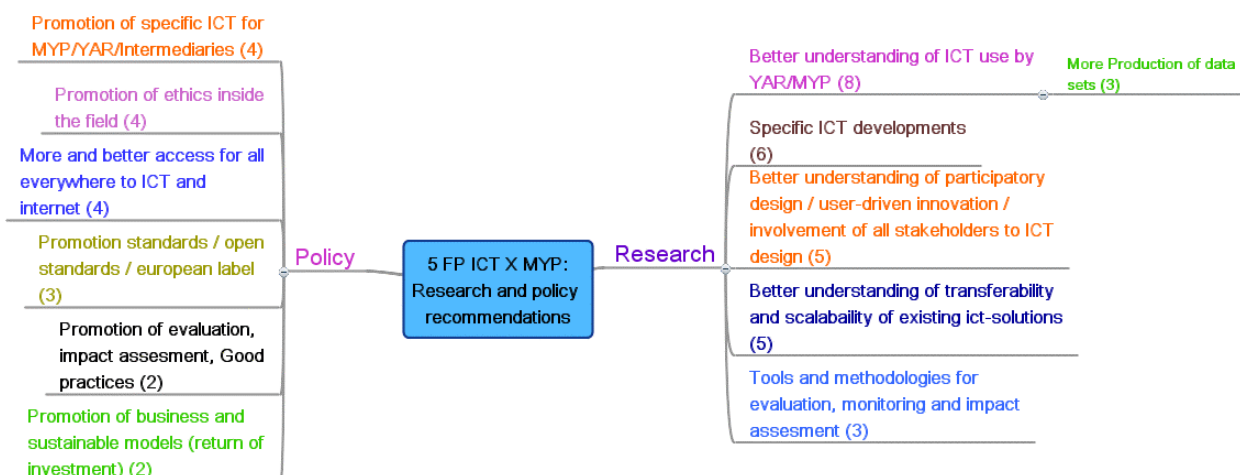


Figure 6: Prioritization of research and policy options

#### 4.3.1 Prioritization of research options

##### A) Better understanding of ICT use by YAR/MYP/Intermediaries:

A better understanding of the take up and use of ICT by YAR in their daily lives depends of the production of more in-depth datasets (focused datasets) in order to understand the outcomes of those uses in their socioeconomic inclusion, inasmuch as it requires frequent updates (longitudinal datasets) as uses and appropriations are in constant evolution due to rapid technological and lifestyles paces. These data can be produced using methods such as focus groups, interviews, questionnaires or "media diaries", where participants are asked to write about their media consumption in a targeted time.<sup>24</sup> Another dimension is related to a better understanding of which are the stakeholders and intermediaries working with/for YAR/MYP, which are their uptake and uses of ICT and the specific challenges, bottlenecks and opportunities regarding their capacity to develop ICT skills and digital competences appropriate to their needs. More research would allow to better understand the positive (opportunities/resilience factors) and negative (risks factors) uses of ICT by YAR, inasmuch as to understand how ICT-driven initiative targeting them are succeeding in fostering their socioeconomic inclusion and how ICT-solutions can be developed to help "intermediaries" working with YAR to "better work and help" their recipients. Furthermore, the legal framework needs to be examined and clarified in order to provide Intermediaries a legally safe environment where they implement ICT for YAR/MYP.

<sup>24</sup> See National Research Council and Institute of Medicine. (2006). Studying Media Effects on Children and Youth: Improving Methods and Measures. Alexandra Beatty, Rapporteur. Program Committee for a Workshop on Improving Research on Interactive Media and Children's Health. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education and Institute of Medicine. Washington, DC: The National Academies Press.

### Some key questions:

- What are the motivations and strategies involved in learning digital skills depending of various ages (profiles of uses)?
- How can we use SNS to develop the digital competences and digital literacy (in formal and informal learning) of YAR/MYP?
- How can opportunities for new pedagogical methods be exploited (by professional/intermediaries) using mobile devices?
- Which tools are appropriate for facilitators?
- How to use ICT (gaming, SNS, mobiles, applications) to reach, engage, connect and improve the life of YAR/MYP?
- Which pedagogical approaches with YAR/MYP can/should be applied by "intermediaries" (youth workers, teachers) using mobile phones?
- How can we develop pedagogy and training (intermediaries) to better use ICT to work with YAR?
- How can we reach and involve secondary users (henceforth "intermediaries" - caretakers, teachers- and "multipliers" - parents) in better using ICT in order to avoid or reduce the digital gap between generations in education?

### **B) Specific ICT developments:**

Projects have proposed a number of specific ICT developments in order to address YAR/MYP needs inasmuch as ICT-solutions for intermediaries working with them. The challenge is to create a more open, accessible environment for technology development and/or technology appropriation (ig. using existing applications developed by commercial or civil society actors). This would allow, for example, for ICT-based solutions (games/applications etc) to be developed on one side, and production of different types of contents to be developed across different projects dealing with YAR/MYP. The customisation and interoperability of content constitutes a key issue, and it should contemplate the empowering of end users to create their own content. Furthermore, different intermediary organisations throughout Europe have similar needs regarding ICT tools that support their work with young people. Online communities that are specifically designed for youth work and online intervention tools that support online counselling should receive support. These tools need to be adjusted specifically to the needs of such organisations and joint European initiatives could give these individual organisations much more powerful tools than they could develop on their own.

### Some key questions:

- Which features should be developed to support YAR/MYP in enhancing their communicational skills and capabilities?
- How can we create safe environments with respect for privacy and security in a legally sound society?
- How can research be implemented throughout Europe on the needs for specialised tools for intermediary organisations in order to address them by developing adequate ICT tools for working with YAR?
- Is it possible to develop versatile interoperable application connecting people developing things individually and in isolation?
- How to develop persuasive meta-application interoperable across platforms?
- How to enable customization and adaptation of ICT to individual needs by developing persuasive applications for caretakers and for pupils?

### **C) Better understanding of participatory design / *user-driven innovation* / involvement of all stakeholders to ICT design:**

All projects have underlined the importance of developing ICT-solutions and ICT-driven initiatives that take into account the perspective, needs and specificities of all stakeholders involved (from YAR/MYP themselves, intermediaries working with them such as social assistants, teachers, youth workers, and multipliers such as parents, communities leaders etc) in order to reach them, stimulate their buy-in (regarding the use and train to ICT), engage their involvement and so on. Indeed, previous research has provided evidence that user involvements - whether it is YAR/MYP or an intermediary - are strongly encouraged when the software can be customised to their own private and individual needs. Nevertheless, methodologies and pedagogical approaches

regarding how to engage in participatory design, user driven innovation and involvement of actors into ICT design are still emergent fields (meaning that how to implement those dynamics are still largely unknown by many actors). A key concept in the development of any tool to support social media refers to 'socio-technical design'. Latter design methods focus on making sure that any tool to support social interaction between two or more people is designed in such a way that it ensures that the interaction is as rich as, or even improves, the experience as it would take place in an offline context.

Some key questions:

- How to involve YAR/MYP in participatory design, authoring, production of contents?
- How to focus and integrate participatory and socio-technical design - when developing new ICT tools that support the interaction between intermediary organisations and the young people they work with?
- How can we reach and involve secondary users (henceforth "intermediaries" - caretakers, teachers- and "multipliers" - parents) in better using ICT?

**D) Better understanding of transferability and scalability of existing ICT-solutions:**

Once the ICT-solution has been developed, one common challenge is to understand its potential for scalability and/or transferability. Is it possible and how to transfer an ICT-solution towards other targets groups? Either by seeing its potential for customization, either by seeing how other groups could take advantage of using it. This challenge is also related to the possibility to scale it in other territorial contexts and/or provide the ICT-development and/or ICT-driven initiative with a larger scope. Finally, some projects pointed at the need for joint development projects enabling to address together the issue of interoperability by the implementation of common platforms for development. Latter should support collaborative business models that enable companies' part of the consortium to bring products to market targeting specific niche sectors as YAR/MYP and intermediaries working with them.

Some key questions:

- How to improve the transferability of findings regarding one target group towards other marginalized groups?
- What are the needs across Europe for certain ICT tools for social intervention with YAR/MYP? More information on this issue would help to improve the scalability of available ICT-developments for other places or other niche users.

**E) Tools and methodologies for evaluation, monitoring and impact assessment:**

All actors agreed on the complexity of measuring, monitoring and evaluating the outcomes and to assess the impact of their ICT-solutions in relation to the effects it produces in the groups/individuals they target. It was also underlined that the state of the art regarding IA methodologies in the field of ICT-driven initiatives targeting YAR is poorly developed. There is a lack of established methodologies and an evidence base on "good practices" regarding what works and under which conditions in impact assessment. This is inhibiting innovation and the application of evaluation methods and practices and is preventing the development of an established knowledge base, tested methodologies and the establishment of accepted common measurement frameworks. Therefore more research is needed regarding the development of methodologies, expertise and tools to help actors on the field to evaluate their activity. It was also suggested that certain initiatives would require an ex-post evaluation, perhaps on a monthly or even an yearly basis, in order to compare the outcomes over time, and capture the complex nature of the relationship between social and digital inclusion processes. The length of the projects themselves was also discussed in similar terms: some of the participants considered that projects should be longer than 2 years in order to generate impact.

Some key questions:

- How can Social Network Analysis be used to measure bonding/bridging Social Capital of young people using them?
- How can management and evaluation tools be developed to monitor the progress of YAR while using specific ICT-solutions?

- How can we better understand and define "soft skills" and how can these be measured individually, as these sorts of skills often develop over time and are very difficult to assess in the short term?
- How can organizations use social return on investments (SROI) to motivate to invest in ICT tools?

#### **4.3.2 Prioritization of policy options**

##### **A) Promotion of more knowledge and specific policies regarding ICT for YAR/MYP and Intermediaries:**

###### Some recommendations:

A definition of YAR/MYP would demonstrate a policy understanding that would help practitioners to better classify marginalisation. This is deeply related to ensure more public support for available quantitative and qualitative data regarding MYP/YAR, inasmuch as the development of indicators to measure marginalization effects and costs. To do so, it would be good to clarify the confused relationships between educational and social agents working with Young People, so it is possible to get all those organizations on board and be able to train them to embrace satisfactorily ICT. Many problems of non-use or low use of ICT by intermediaries are related to how YAR/MYP use themselves ICT, making that some people working with YAR feel that it is the technology which has contributed to the problem; and/or making them feel that their lack of familiarity with technology might undermine their authority making them resilient to use it in their work.

Participants also agreed that social exclusion and ICT are related in many forms. One form of social exclusion caused by ICT is related a too intense use of them. For instance, some young people only stick to virtual communities, are addicted to videogames, or have a bedroom culture and this could result in exclusion caused by a mal/misuse of ICT. Therefore there is a need for initiatives to reinforce links between reality and virtual life for young people, and for policymaking that take into account this type of exclusion.

Mobile platforms are increasingly uptake and use by YP. Regarding those uses, important and positive outcomes can be achieved in order to improve their soft skills such as self-confidence, self-esteem, communicational capabilities and capacity to work in a team environment. Soft skills are important in order to gain autonomy, empower themselves and foster their socio-economic inclusion; therefore policies aiming at increasing the development of social skills by YAR/MYP should take strongly into account strongly the current and potential role played by mobile devices in fostering those skills.

##### **B) Promotion of ethics in the field:**

###### Some recommendations:

There is a need for more policies taking into account ethics in the governance of ICT development and use when working with YAR/MYP and young people in general. Freedom and ethics developed by non profit initiatives such as Wikipedia could be applied by public organizations targeting YAR/MYP for instance. The organization of an "Ethical approval for further research" on the field could be also a fruitful experience that could be developed through the promotion of committees dealing with ethical issues regarding ICT and young people. On the other hand, existing organisations, working with YAR/MYP, have in place ethical practises. Instead of creating separate ethical rules for the ICT, their existing ethical frameworks need to be adapted to integrate ICT into the organisation working methods. Finally, policy support for the creation of international panel of experts regarding serious/social gaming and ethics regarding data monitoring in SNS used by young people would also help to promote ethics and policymaking in the field.

##### **C) More and better access for all everywhere to ICT and internet and more training to digital competences:**

###### Some recommendations:

eInclusion policies should increase the impact of initiatives aiming at ensure a free access for all to Internet as this access is still perceived as too deficient and dependent of the socio-economic characteristics of users. On

the other hand, there is a need for a better use of available public resources for connection and hosting. An example of this could be to apply grid-computing to distribute free internet connection to wifi public networks when not in use, or stimulate free hosting in public servers. As just underlined, eInclusion initiatives, facilitated by public and civil society actors, aiming at enabling access for all are still required, but there is evidence that more initiatives to develop Digital Competences are needed in order to support YAR/MYP to take full advantage of ICT and be part of current and future European information societies. Policy-making therefore should keep on supporting eInclusion initiatives aiming at fostering digital competences for all and target explicitly new categories of groups regarding digital.

#### **D) Promotion standards / open standards / European label-certification:**

##### Some recommendations:

Regarding eInclusion policies and programmes, ensure that funding towards initiatives favour the use of open standards and software in order to make easier interoperability, customization and joint development (for instance, promote the development of open and customizable applications rather than closed and non interoperable applications in the field of ICT development for MYP/YAR). Besides, the use of open licenses insures that knowledge and services produced remains in the public sphere and can be accessed, used and improved by anyone.

#### **E) Promotion of good practices, evaluation and impact assessment:**

##### Some recommendations:

There are many conferences/papers showing how new technologies might work but there isn't so much studies regarding good practices with technologies that have been embedded into application areas for some time and are actually working. Some policy in order to promote the identification and analysis of GP should easiness networking and awareness rising by stakeholders dealing with YAR/MYP on the positive outcomes of using ICT to reach and re-engage YAR/MYP.

Policy-making should take into account positive outcomes and demonstrated socio-economic impacts of already funded ICT-solutions and initiatives targeting YAR/MYP when planning new programmes and funding. To achieve so, clearest guidelines and indicators to develop the socio-economic impact assessment of ICT should be supported from eInclusion policies.

#### **F) Promotion of business and sustainable models:**

##### Some recommendations:

Help organizations to develop capacity for social return on investments in order to motivate them to invest in ICT tools and training to ICT. Promote more business models based on user-driven innovation control (to do so some participants argued to diminish influence of technology vendors by enabling participation and contribution of other models more user-driven centred). Promote collaboration between players in the social media/gaming space in order to create commercial partnerships that will make ROI from these projects more achievable. Finally, don't reinvent the wheel before knowing the current state of the art in the field. If you are planning to fund new ICT-development, check if past or current available solutions are already taking place. Privilege funding towards already existing projects which are showing positive socio-economic outcomes. In order to do so, some participants also pointed at the interest of sending EU officials for brief missions in the field work with organizations working with YAR/MYP. This process would help them to better understand conditions, challenges and opportunities taking place in those initiatives.





## Annex 1: Evaluation of the Methodology

Incluso: Lifting up our own experience in order to work with other projects, impressed by previous methodology used by ITPS in the expert workshop held in Seville past November. This kind of initiative makes it easier to projects to understand how EC works.

Comeln: It was interesting to transform our personal and closely modelled on Comeln recommendations and see that they are reflected in a wider context.

Replay: The initiative is a very good process, producing interesting conversations and leading to a great production of knowledge. It is powerful to have a group like ours appearing together at the Incluso conference, it is a good opportunity to deliver a clear message to policymakers and other actors working on the field of ICT and YAR. What we need to do now is produce a clear set of prioritised recommendations that will influence policy and research in this area.

Hands: It was great to see a bunch of agreements and clustering elements among 5 projects and we thank DG INFSO and in particular Giorgio Zoia for his dedication.

UMSIC: The aim and procedure to gain ideas on research and policy by current projects is very good! It was possible to identify common directions. In addition, informal information exchange among similar projects is important. Such meetings should be repeated!



## Annex 2: Glossary

**API:** "An application programming interface (API) is an interface implemented by a software programme which enables it to interact with other software. It facilitates interaction between different software programmes similar to the way the user interface facilitates interaction between humans and computers. An API is implemented by applications, libraries, and operating systems to determine their vocabularies and calling conventions, and is used to access their services. It may include specifications for routines, data structures, object classes, and protocols used to communicate between the consumer and the implementer of the API".

Source: [http://en.wikipedia.org/wiki/Application\\_programming\\_interface](http://en.wikipedia.org/wiki/Application_programming_interface)

**Apps (Application Software):** "also known as an application, is computer software designed to help the user to perform singular or multiple related specific tasks. Examples include enterprise software, accounting software, office suites, graphics software and media players".

Source: [http://en.wikipedia.org/wiki/Application\\_software](http://en.wikipedia.org/wiki/Application_software)

**Consensus:** "means overwhelming agreement. And, it is important that consensus be the product of a good-faith effort to meet the interests of all stakeholders. The key indicator of whether or not a consensus has been reached is that everyone agrees they can live with the final proposal; that is, after every effort has been made to meet any outstanding interests. Thus, consensus requires that someone frame a proposal after listening carefully to everyone's interests. Interests, by the way, are not the same as positions or demands. Demands and positions are what people say they must have, but interests are the underlying needs or reasons that explain why they take the positions that they do. Most consensus building efforts set out to achieve unanimity. Along the way, however, it often becomes clear that there are holdouts - people who believe that their interests will be better served by remaining outside the emerging agreement. Should the rest of the group throw in the towel? No, this would invite blackmail (i.e. outrageous demands that have nothing to do with the issues under discussion). Most dispute resolution professionals believe that groups or assemblies should seek unanimity, but settle for overwhelming agreement that goes as far as possible toward meeting the interests of all stakeholders. It is absolutely crucial that this definition of success be clear at the outset".

Source: "A Sort Guide to Consensus Building": [http://web.mit.edu/publicdisputes/practice/cbh\\_ch1.html](http://web.mit.edu/publicdisputes/practice/cbh_ch1.html)

**Grid computing:** "is a term referring to the combination of computer resources from multiple administrative domains to reach common goal. What distinguishes grid computing from conventional high performance computing systems such as cluster computing is that grids tend to be more loosely coupled, heterogeneous, and geographically dispersed. Although a grid can be dedicated to a specialized application, it is more common that a single grid will be used for a variety of different purposes".

Source: [http://en.wikipedia.org/wiki/Grid\\_computing](http://en.wikipedia.org/wiki/Grid_computing)

**Immersive worlds (or Virtual Reality):** "is a genre of online community that often takes the form of a computer-based simulated environment, through which users can interact with one another and use and create objects[1]. Virtual worlds are intended for its users to inhabit and interact, and the term today has become largely synonymous with interactive 3D virtual environments, where the users take the form of avatars visible to others graphically. These avatars are usually depicted as textual, two-dimensional, or three-dimensional graphical representations, although other forms are possible (auditory and touch sensations for example). Some, but not all, virtual worlds allow for multiple users".

Source: [http://en.wikipedia.org/wiki/Virtual\\_world](http://en.wikipedia.org/wiki/Virtual_world)

**Interoperability:** "With respect to software, the term interoperability is used to describe the capability of different programmes to exchange data via a common set of exchange formats, to read and write the same file formats, and to use the same protocols. (The ability to execute the same binary code on different processor platforms is 'not' contemplated by the definition of interoperability.) The lack of interoperability can be a consequence of a lack of attention to standardization during the design of a programme. Indeed, interoperability is not taken for granted in the non standards-based portion of the computing world."

Source: <http://en.wikipedia.org/wiki/Interoperability#Software>

**Open Source Software:** "is computer software that is available in source code form for which the source code and certain other rights normally reserved for copyright holders are provided under a software license that permits users to study, change, and improve the software. Open source licenses often meet the requirements of the Open Source Definition. Some open source software is available within the public domain. Open source software is very often developed in a public, collaborative manner. Open source software is the most prominent example of open-source development and often compared to (technically defined) user-generated content or (legally defined) open content movements."

Source: [http://en.wikipedia.org/wiki/Open\\_source\\_software](http://en.wikipedia.org/wiki/Open_source_software)

**Open standard:** "is a standard that is publicly available and has various rights to use associated with it, and may also have various properties of how it was designed (e.g. open process). There is no single definition and interpretations do vary with usage. The terms "open" and "standard" have a wide range of meanings associated with their usage. There are number of definitions of open standards which emphasise different aspects of openness, including of the resulting specification, the openness of the drafting process, and the ownership of rights in the standard. The term "standard" is sometimes restricted to technologies approved by formalized committees that are open to participation by all interested parties and operate on a consensus basis. The definitions of the term "open standard" used by academics, the European Union and some of its member governments or parliaments such as Denmark, France, and Spain preclude open standards requiring fees for use, as do the New Zealand, South African and the Venezuelan governments. On the standard organisation side, the W3C ensures that its specifications can be implemented on a Royalty-Free (RF) basis".

Source: [http://en.wikipedia.org/wiki/Open\\_standards](http://en.wikipedia.org/wiki/Open_standards)

**Participatory design:** "(known before as 'Cooperative Design') is an approach to design that attempts to actively involve all stakeholders (e.g. employees, partners, customers, citizens, end users) in the design process to help ensure that the product designed meets their needs and is usable. The term is used in a variety of fields e.g. software design, urban design, architecture, landscape architecture, product design, sustainability, planning or even medicine as a way of creating environments that are more responsive and appropriate to their inhabitants' and users' cultural, emotional, spiritual and practical needs. It is one approach to placemaking. It has been used in many settings and at various scales. Participatory design is an approach which is focused on processes and procedures of design and is not a design style. For some, this approach has a political dimension of user empowerment and democratisation. For others, it is seen as a way of abrogating design responsibility and innovation by designers."

Source: [http://en.wikipedia.org/wiki/Participatory\\_design](http://en.wikipedia.org/wiki/Participatory_design)

**Persuasive computing:** "this area of inquiry explores the overlapping space between persuasion in general (influence, motivation, behaviour change, etc.) and computing technology. This includes the design, research, and programme analysis of interactive computing products (such as the Web, desktop software, specialized devices, etc.) created for the purpose of changing people's attitudes or behaviours. Fogg derived the term captology from an acronym: Computers As Persuasive Technologies. In 2003 he published the first book on captology, entitled Persuasive Technology: Using Computers to Change What We Think and Do".

Source: <http://en.wikipedia.org/wiki/Captology>

**Serious games:** "is a game designed for a primary purpose other than pure entertainment. The "serious" adjective is generally pretended to refer to products used by industries like defence, education, scientific exploration, health care, emergency management, city planning, engineering, religion, and politics."

Source: [http://en.wikipedia.org/wiki/Serious\\_games](http://en.wikipedia.org/wiki/Serious_games)

**Social Networking Sites (SNS):** "A social network service focuses on building and reflecting of social networks or social relations among people, e.g. who share interests and/or activities. A social network service essentially consists of a representation of each user (often a profile), his/her social links, and a variety of additional services. Most social network services are web-based and provide means for users to interact over the internet, such as e-mail and instant messaging. Although online community services are sometimes considered as a social network service in a broader sense, social network service usually means an individual-

centred service whereas online community services are group-centred. Social networking sites allow users to share ideas, activities, events, and interests within their individual networks".

Source: [http://en.wikipedia.org/wiki/Social\\_Networking\\_Sites](http://en.wikipedia.org/wiki/Social_Networking_Sites)

**Social Return on Investment (SROI):** "is an attempt to measure the social and financial value created by a non profit, NGO or business. It has not been proven to drive increased investment, but it is popular with academics and some consultancies. A number of services are now looking at analysing the 'investment' in charities as yielding a social return on investment. [...] SROI is an approach to understanding and managing the impacts of a project, an organisation or a policy. It is based on stakeholders and puts financial values on the important impacts identified by stakeholders which do not have market values. The aim is to include the values of people that are often excluded from markets in the same terms as used in a market, which is money, in order to give people a voice in resource allocation decisions."

Source: [http://en.wikipedia.org/wiki/Social\\_Return\\_on\\_Investment](http://en.wikipedia.org/wiki/Social_Return_on_Investment)

**Soft skills:** "is a sociological term relating to a person's "EQ" (Emotional Intelligence Quotient), the cluster of personality traits, social graces, communication, language, personal habits, friendliness, and optimism that characterize relationships with other people. Soft skills complement hard skills (part of a person's IQ), which are the occupational requirements of a job and many other activities."

Source: [http://en.wikipedia.org/wiki/Soft\\_skills](http://en.wikipedia.org/wiki/Soft_skills)

**Traceability:** "refers to the completeness of the information about every step in a process chain. It is the ability to chronologically interrelate uniquely identifiable entities in a way that is verifiable. Traceability is the ability to verify the history, location, or application of an item by means of documented recorded identification".

Source: <http://en.wikipedia.org/wiki/Traceability>

**User-driven innovation:** "refers to innovation by consumers and end users, rather than suppliers. Eric von Hippel (von Hippel 1986) of MIT and others observed that many products and services are actually developed or at least refined, by users, at the site of implementation and use. These ideas are then moved back into the supply network. This is because products are developed to meet the widest possible need; when individual users face problems that the majority of consumers do not, they have no choice but to develop their own modifications to existing products, or entirely new products, to solve their issues. Often, user innovators will share their ideas with manufacturers in hopes of having them produce the product, a process called free revealing."

Source: [http://en.wikipedia.org/wiki/User\\_innovation](http://en.wikipedia.org/wiki/User_innovation)

**Walled gardens:** "is an analogy used in the telecommunications and media industries when referring to carrier or service provider control over applications and content/media on platforms (such as mobile devices) and restricting convenient access to non-approved applications or content. [...] More generally, it refers to a closed or exclusive set of information services provided for users. This is in contrast to providing consumers open access to the applications and content".

Source: [http://en.wikipedia.org/wiki/Walled\\_garden\\_%28technology%29](http://en.wikipedia.org/wiki/Walled_garden_%28technology%29)

**Wikipedia:** "is a free, web-based, collaborative, multilingual encyclopaedia project supported by the non-profit Wikimedia Foundation. Its 16 million articles (over 3.3 million in English) have been written collaboratively by volunteers around the world, and almost all of its articles can be edited by anyone with access to the site."

For more information regarding governance and ethics in Wikipedia see Wikipedia five pillars: <http://en.wikipedia.org/wiki/Wikipedia:5P>



European Commission

**JRC 61705– Joint Research Centre – Institute for Prospective Technological Studies**

Title: RESEARCH AND POLICY BRIEF ON ICT FOR THE INCLUSION OF YOUTH AT RISK: Using ICT to reengage and foster socioeconomic inclusion of youth at risk of social exclusion, marginalised young people and intermediaries working with them.

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Technical Note

**Abstract**

This policy and research note is based on two concertation meetings (20 January and 11 June 2010) and different exchanges between IPTS and representatives from five FP7 projects (INCLUSO, ComeIn, REPLAY, HANDS, UMSIC). These projects look at ICT-based solutions for the promotion of the socioeconomic and inclusion of YAR/MYP by fostering their access to ICT, digital competences, education and training, social integration and employment opportunities. This document summarizes knowledge from recent IPTS research which included a review of the literature on social exclusion of young people, and ICT use by young people. It also provides insights on the current EU policy context and programmes targeting YAR/MYP. Finally, it presents commonly agreed and prioritized research and policy recommendations from 5 FP7 projects in the field of ICT for marginalized young people, youth at risk of social exclusion and intermediaries working with them.



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